

The results of experiments on the sciatic in dogs and rabbits were as follows:

Section of the sciatic caused immediately a slow, but steadily increasing rise of temperature of the foot of the corresponding side. Strong irritation of the peripheral portion caused, after a short latent period, (fifteen seconds) a steady increase of temperature of the foot. After very prolonged irritation, a slight increase takes place after the diminution has reached its maximum. If at this stage, while the temperature is still on the rise, the peripheral end of the sciatic is again irritated, the temperature again falls, but after a longer latent period, (30 seconds) and to a less degree than during the former irritation.

Further investigations are promised by the authors on this, and related phenomena.

---

SECTION OF THE POSTERIOR ROOTS OF THE SPINAL NERVE.—M. Couty has divided in frogs the posterior roots of the spinal nerves, and then compared the members thus rendered anæsthetic, with the normal ones. Although the movements of these anæsthetized members were considerably embarrassed, there was no diminution of contractility revealed by electrical examination.

We scarcely ever observe any appreciable trouble in the nutrition of other parts of the anæsthetized members, the skin, cellular tissue, etc., and this, notwithstanding the fact that some of the animals experimented upon had survived two, and even six, months after the operation. Hence we may conclude from these experiments, that division of the posterior roots and interruption of centripetal conduction has no influence on the nutrition, at least, not in frogs.

Twice, only, in more than forty experiments, there followed an arthropathy of the knee of the leg anæsthetized, with swelling of the corresponding osseous terminations, and œdema of the whole member; in a third frog there was œdema without the arthropathy. These disorders, true complications, were not due to any consecutive myelitis, since the symptoms of this were not present, and it is probable that they had their cause in a contusion or alteration of the posterior sensitive ganglion. *C. R. Soc. de Biologie* session of April 9th. *Gaz. des Hôpitaux*.

---

THE OPHTHALMIC GANGLION.—M. Reichart, in a memoir published in Munich, 1875, abstr. in *Centralbl. f. d. med. Wissensch.* No. 8, gives the results of an investigation on the anatomy of the ophthalmic ganglion, undertaken by himself under the direction of Bischoff and Rudinger. He first gives a historical sketch of the subject, and description of his method, the principal point in which was the employment of optical appliances in the aid of observations on objects that had been preserved in spirits of wine. He then gives a description of the ganglion, and notices the following facts: the presence of a single long root is to be considered as exceptional; there are, on the other hand, several sensory roots; there is usually not a single vaso-motor root, but a small number

of fine filaments pass from the angle of the carotid, bend between the oculo-motor nerve and the long root of the ganglion to its posterior angle, but the ganglion receives the majority of its sympathetic fibres by way of the path of the oculo-motor, with, as a still further source, the long root of the ganglion. There are, besides, some fine sympathetic fibres that pass over the ganglion, without entering it, and join the ciliary nerves. In these last are to be seen here and there in the vicinity of the ganglion, collections of ganglion cells. In all the cases observed, (some 30), there was to be observed a regressive anastomosis, there were constantly present, going from the ganglion, two or three nerve fibres which wound around one of the adjacent posterior ciliary arteries, and returning toward the centre, were lost in one of the thicker ciliary nerves, or in the ganglion itself. Nerve fibres penetrating, but not joining, the ganglion were not observed.

---

THE DIVISION PROCESSES IN THE NERVE CELLS. Dietl, *Sitzungb. der k. Akad. des Wissensch.* (abstr. in *Rev. des Science Médicales*).—While Koelliker, Beale, Henle, etc, admit the proliferation of the nerve cells in the adult by division of the mother cells, Mayer, and following him, Dietl, consider these processes as improbable. Mayer considers the nerve cells of the sympathetic as a reserve material for the reproduction of the nerve fibres that had become unsuitable for the transmission of the nervous influence. For their development, the nerve cells utilize the figured elements of the blood, notably the red globules. We find in the sympathetic, in the vicinity of the vessels, special elements formed of a fundamental substance, and numerous nuclei, analogous as regards form and micro-chemical reactions to the blood globules. The fundamental substance closing gradually around these nuclei, forms masses of protoplasm, which slowly take on the appearance of nerve cells. These, apolar at first, later present a prolongation, which, uniting itself with one or another cell, forms a nerve fibre. Dietl, from his researches in the gasserian ganglion of the frog, concludes that the opinion of Mayer is well founded, and that the same process takes place, not only in the sympathetic, but also in other ganglia of the body.

---

THE UNIPOLAR ELECTRIC EXCITATION OF THE NERVES. Chauveau, *O. R. Acad. de Sci.*, Nov., 1875 (abstr. by Math. Duval, in *Rev. des Sciences Médicales*).—In order to realize the condition of unipolar excitation, we place one electrode on one nerve, and the other on another, separated from the first by a portion of the body of sufficient volume to represent a conductor of enormous section, in relation to the reduced section of the animal circuit at the level of the electrodes: we place, for example, in man and the mammals, the electrodes on the two facial nerves, one on the right and the other on the left; in the frog we apply one to the sciatic of one side, and the other to that of the other limb. We have then two simultaneous unipolar excitations, one positive and the other negative.

One of the more important advantages of this unipolar excitation is